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Substitute for form 1449A/B/PTO			Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)			Application Number	10/726,645-Conf. #6181
			Filing Date	December 4, 2003
			First Named Inventor	Gregg A. Hastings
			Art Unit	1644
			Examiner Name	Belyavskiy, Michail A
			Attorney Docket Number	PF107D6
Sheet	1	of	5	

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
MB	AA	US-5,552,281	09-03-1996	STASHENKO, et al.	
	AB	US-5,223,408	06-29-1993	GOEDDEL, et al.	
	AC	US-5,501,969	03-26-1996	HASTINGS	
	AD	US-5,486,623	01-23-1996	ZIMMERMAN, et al.	
	AE	US-5,374,623	12-20-1994	ZIMMERMAN, et al.	
	AF	US-5,312,816	05-17-1994	SPIELVOGEL, et al.	
	AG	US-5,736,357	04-07-1998	BROMME	
	AH	US-5,624,801	04-29-1997	STASHENKO, et al.	
MB	AI	US-5,656,728	08-12-1997	STASHENKO, et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
MB	AJ	EP-0 104 920	04-04-1984	BIAGEN, INC.		
	AK	EP-0 110,674	04-22-1987	DAI NIPPON INSATSU KABUSHIKI KAISHA		
	AL	EP-0 111 129	09-28-1998	IBM CORP.		
	AM	EP-0 504 938	09-23-1992	SUNTORY, LTD.		
	AN	EP-0 520 427	12-14-1994	MITSUBISHI KAISA CORP.		
	AO	EP-0 525,420	05-12-1999	MITSUBISHI CHEM. CORP.		
	AP	WO-91/01378	02-07-1991	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE		
	AQ	WO-94/23033	10-13-1994	FORSYTH DENTAL INFIRMARY FOR CHILDREN		
	AR	WO-95/24182	09-14-1995	HUMAN GENOME SCIENCES, INC.		
	AS	WO-96/13523	05-09-1996	KHEPRI PHARMACEUTICALS, INC.		
	AT	WO-97/35971	10-02-1997	AMRAD OPERATIONS PTY., LTD.		
	AU	WO-97/47642	12-18-1997	SMITHKLINE BEECHAM CORP.; HUMAN GENOME SCIENCES, INC.		
	AV	WO-98/00716	01-08-1998	NOVADIX, INC.		
	AW	WO-98/03651	01-29-1998	FORSYTH DENTAL INFIRMARY FOR CHILDREN		
	AX	WO-98/08494	01-29-1998	MOUNT SINAI SCHOOL OF MEDICINE OF THE CITY UNIVERSITY OF NEW YORK; BRIGHAM & WOMEN'S HOSPITAL		
MB	AY	WO-98/20024	05-14-1998	MERCK FROSST CANADA, INC.		

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<i>MB</i>	AZ	WO-98/20156	05-14-1998	MERCK FROSST CANADA, INC.	_____	
<i>MB</i>	BA	WO-98/34117	08-06-1998	THE UNIVERSITY OF LIVERPOOL	_____	

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NON PATENT LITERATURE DOCUMENTS				
Examiner Initials	Cite No. ¹	Include name of the author (In CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T ²
MB	BB	BARRETT, et al., "L-trans-Epoxy succinyl-leucylamido(4-guanidino)butane (E-64) and its analogues as inhibitors of cysteine proteinases including cathepsins B, H and L," <i>Biochem. J.</i> , 201:189 (1982)		
	BC	BOSSARD, et al., "Proteolytic activity of human osteoclast cathepsin K," <i>J. Biol. Chem.</i> , 271:12517-12524 (1996)		
	BD	BROMME, et al., "Human cathepsin O2, a novel cysteine protease highly expressed in osteoclastomas and ovary molecular cloning, sequencing and tissue distribution," <i>J. Biol. Chem.</i> , 376(6):379-384 (1995)		
	BE	BROMME, et al., "Peptide methyl ketones as reversible inhibitors of cysteine proteinases," <i>J. Enzyme Inhibition</i> , 3:13-21 (1989)		
	BF	BROMME, et al., "Functional expression of human cathepsin S in <i>Saccharomyces cerevisiae</i> ," <i>J. Biol. Chem.</i> , 268:4832-4838 (1993)		
	BG	BROMME, et al., "Potent inactivation of cathepsins S and L by peptidyl (Acyloxy)methyl ketones ^{a,b} ," <i>J. Biol. Chem.</i> , 375:343-347 (1994)		
	BH	BROMME, et al., "Peptide vinyl sulphones: a new class of potent and selective cysteine protease inhibitors," <i>Biochem. J.</i> , 315:85-89 (1996)		
	BI	BROMME, et al., "Human cathepsin O2, a matrix protein-degrading cysteine protease expressed in osteoclasts," <i>J. Biol. Chem.</i> , 271:2126-2132 (1996)		
	BJ	BROWN, et al., "Lymphopain, a cytotoxic T and natural killer cell-associated cysteine proteinase," <i>Leukemia</i> , 12:1771-1781 (1998)		
	BK	CARMONA, et al., "Potency and selectivity of the cathepsin L propeptide as an inhibitor of cysteine proteases," <i>Biochem. J.</i> , 35:8149-8157 (1996)		
	BL	CHAGAS, et al., "Inhibition of cathepsin B by its propeptide: use of overlapping peptides to identify a critical segment," <i>FEBS LETTS.</i> , 392:233-236 (1996)		
	BM	CYGLER, et al., "Proregion structure of members of the papain superfamily. Mode of inhibition of enzymatic activity," <i>Biochemie</i> , 79:645-652 (1997)		
	BN	CYGLER, et al., "Structure of rat procathepsin B: mode for inhibition of cysteine protease activity by the proregion structure," <i>Structure</i> , 4:405-416 (1996)		
	BO	D'ALESSIO, et al., "Expression in <i>Escherichia coli</i> , refolding, and purification of human procathepsin K, an osteoclast-specific protease," <i>Protein Expression and Purification</i> , 15:213-220 (1999)		
	BP	DELAISSE, et al., "Inhibition of bone resorption in culture by inhibitors of thiol proteinases," <i>J. Biochem.</i> , 192:365-368 (1980)		
MB	BQ	DELAISSE, et al., "In vivo and in vitro evidence for the involvement of cysteine proteinases in bone resorption," <i>Biochem. Biophys. Res. Comm.</i> , 125:441-447 (1984)		

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Sheet	3	of	5	Attorney Docket Number	PF107D6

MB	BR	DELAISSE, et al., "The effects of inhibitors of cysteine - proteinases and collagenase on the resorptive activity of isolated osteoclasts," <i>Bone</i> , 8:305-313 (1987)	
	BS	DELAISSE, et al., "Collagenolytic cysteine proteinases of bone tissue," <i>Biochem. J.</i> , 279:167-174 (1991)	
	BT	DRAKE, et al., "Identification of a novel osteoclast selective human cysteine proteinase," <i>J. Bone Mineral Research</i> , 9:5177 (A110) (1994)	
	BU	DRAKE, et al., "Cathepsin K, but not Cathepsins B, L, or S, is abundantly expressed in human osteoclasts," <i>J. Biol. Chem.</i> , 271:12511-12516 (1996)	
	BV	DUFFY, et al., "Design and synthesis of diaminopyrrolidinone inhibitors of human osteoclast cathepsin K," <i>Bioorganic & Medicinal Chemistry</i> , 9:1907-1910 (1999)	
	BW	FOX, et al., "Potent slow-binding inhibition of cathepsin B by its propeptide," <i>Biochem. J.</i> , 31:12571-12576 (1992)	
	BX	GELB, et al., "Pycnodysostosis, a lysosomal disease caused by cathepsin K deficiency," <i>Science</i> , 273:1236-1238 (1996)	
	BY	GELB, et al., "Structure and chromosomal assignment of the human cathepsin K Gene," <i>Genomics</i> , 41:258-262 (1997)	
	BZ	GELB, et al., "Cathepsin K: isolation and characterization of the murine cDNA and genomic sequence, the homolog of the human pycnodysostosis gene," <i>Biochem. and Mol. Med.</i> , 59:200-206 (1996)	
	CA	GOTO, et al., "Immunohistochemical localization of cathepsins B, D and L in the rat osteoclast," <i>Histochemistry</i> , 99:411-414 (1993)	
	CB	GOTO, et al., "Localization of cathepsins B, D, and L in the rat osteoclast by immuno-light and -electron microscopy," <i>Histochemistry</i> , 101:33-40 (1994)	
	CC	GUAY, et al., "Cloning and expression of Rhesus Monkey cathepsin K," <i>Bone</i> , 25:204-209 (1999)	
	CD	HILL, et al., "Inhibition of bone resorption by selective inactivators of cysteine proteinases," <i>J. Cell Biochem.</i> , 56:118-130 (1994)	
	CE	HUDECKI, et al., "Limited benefit to genetically dystrophic chickens from a synthetic proteinase inhibitor: Ep475," <i>Chemical Abstracts.</i> , 99:82493u (1983)	
	CF	HUDECKI, et al., "Limited benefit to genetically dystrophic chickens from a synthetic proteinase inhibitor: Ep475," <i>J. Neurol. Sci.</i> , 60:55-66 (1983)	
	CG	INAKA, et al., "Molecular cloning of human cDNA for cathepsin K: novel cysteine proteinase predominantly expressed in bone," <i>Biochem. & Biophys. Res. Comm.</i> , 206(1):89-96 (1995)	
	CH	JAMES, et al., "Development and characterization of a human in vitro resorption assay: demonstration of utility using novel antiresorptive agents," <i>J. Bone & Mineral Research</i> , 14:1562-1569 (1999)	
	CI	KAKEGAWA, et al., "Participation of cathepsin L on bone resorption," <i>FEBS LETTS.</i> , 321:247-250 (1993)	
	CJ	KANE, et al., "The role of cathepsin L in malignant transformation," <i>Seminars in Cancer Biol.</i> , 1:127-136 (1990)	
	CK	LALONDE, et al., "The crystal structure of human procatepsin K," <i>Biochem.</i> , 38:862-869 (1999)	
	CL	LEE, et al., "Generation of cDNA probes directed by amino acid sequence: cloning of urate oxidase," <i>Science</i> , 239:1288-1291 (1988)	
	CM	LEHNINGER, A., "Biochemistry" 2 nd ed.; Worth Publishers, Inc., New York, pp. 141 and 150 (1975)	
	CN	LERNER, et al., "Human cystatin C, a cysteine proteinase inhibitor, inhibits bone resorption in vitro stimulated by a parathyroid hormone and parathyroid hormone related peptide of malignancy," <i>J. Bone & Mineral Research</i> , 4:433-439 (1992)	
MB	CO	LERNER, R.A., "Tapping the immunological repertoire to produce antibodies of predetermined specificity," <i>Nature</i> , 299:592-596 (1982)	

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Sheet	4	of	5		

MB	CP	LI, et al., "Characterization of mouse cathepsin K gene, the gene promoter, and the gene expression," <i>J. Bone & Mineral Research</i> , 14:487-499 (1992)	
	CQ	LI, et al., "Cloning and complete coding sequence of a novel human cathepsin expressed in giant cells of osteoclastomas," <i>J. Bone & Mineral Research</i> , 10:1197-1202 (1995)	
	CR	LIAO, et al., "Cathepsins J and K: high molecular weight cysteine proteinases from human tissues," <i>Biochem. Biophys. Res. Comm.</i> , 124:909-916 (1984)	
	CS	MACIEWICZ, et al., "A comparison of four cathepsins (B, L, N and S) with collagenolytic activity from rabbit spleen," <i>Biochem. J.</i> , 256:433-440 (1988)	
	CT	MARQUIS, et al., "Potent dipeptidylketone inhibitors of the cysteine protease cathepsin K," <i>Bioorganic & Medicinal Chemistry</i> , 7:581-588 (1999)	
	CU	MAUBACH, et al., "The inhibition of cathepsin S by its propeptide specificity and mechanism of action," <i>Eur. J. of Biochem.</i> , 250:745-750 (1997)	
	CV	McGRATH, et al., "Crystal structure of human cathepsin K complexed with a potent inhibitor," <i>Nature Structural Biol.</i> , 4:105-109 (1997)	
	CQ	McQUENEY, et al., "Autocatalytic activation of human cathepsin K," <i>J. Biol. Chem.</i> , 272(21):13955-13960 (1997)	
	CX	NAGLER, et al., "Human cathepsin X: a cysteine protease with unique carboxypeptidase activity," <i>Biochemistry</i> , 38(39):12648-12654 (1999)	
	CY	OHSAWA, et al., "Lysosomal cysteine and aspartic proteinases, acid phosphatase, and an endogenous cysteine proteinase inhibitor, cystatin-beta, in rat osteoclasts," <i>J. Histochemistry & Cytochemistry</i> , 41(7):1075-1083 (1993)	
	CZ	PAGE, et al., "Purification and characterisation of cysteine proteinases from human osteoclastomas," <i>Biochem. Soc. Transactions</i> , 19:286S (1991)	
	DA	RAKOACZY, et al., "Detection and possible functions of a cysteine protease involved in digestion of rod outer segments by retinal pigment epithelial cells," <i>Invest. Ophthal. & Vis. Sci.</i> , 35:4100-4108 (1994)	
	DB	SHI, et al., "Molecular cloning of human cathepsin O, a novel endoproteinase and homologue of rabbit OC2," <i>FEBS LETTS.</i> , 357:129-134 (1995)	
	DC	SLOANE, et al., "Cathepsin B and cystatins: evidence for a role in cancer progression," <i>Seminars in Cancer Biol.</i> , 1:137-152 (1990)	
	DD	SMITH, et al., "Activity and deletion analysis of recombinant human cathepsin L expressed in <i>Escherichia coli</i> ," <i>J. Biol. Chem.</i> , 264:20487-20495 (1989)	
	DE	TEZUKA, et al., "Molecular cloning of a possible cysteine proteinase predominantly expressed in osteoclasts," <i>J. Biol. Chem.</i> , 269:1106-1109 (1994)	
	DF	THOMPSON, et al., "Structure-based design of non-peptide, carbonylhydrazide-based cathepsin K inhibitors," <i>Bioorganic & Medicinal Chemistry</i> , 7:599-605 (1999)	
	DG	TURK, et al., "Structural and functional aspects of papain-like cysteine proteinases and their protein inhibitors," <i>Biol. Chem.</i> , 378:141-150 (1997)	
	DH	VAN NOORDEN, et al., "Selective inhibition of cysteine proteinases by Z-Phe-A CH ₂ F suppresses digestion of collagen by fibroblasts and osteoclasts," <i>Biochemical & Biophysical Research Communications</i> , 178(1):178-184 (1991)	
	DI	VEBER, et al., "The new partnership of genomics and chemistry for accelerated drug development," <i>Chem. Biol.</i> , 1:151-156 (1997)	
	DJ	VELASCO, et al., "Human cathepsin O," <i>J. Biol. Chem.</i> , 43:27136-27142 (1994)	
	DK	VOTTA, et al., "Peptide aldehyde inhibitors of cathepsin K inhibit bone resorption both in vitro and in vivo," <i>J. Bone & Mineral Research</i> , 12:1396-1406 (1997)	
	DL	WANG, et al., "Human cathepsin F," <i>J. Biol. Chem.</i> , 273:32000-32008 (1998)	
	DM	WIEDERANDERS, et al., "Phylogenetic conservation of cysteine proteinases," <i>J. Biol. Chem.</i> , 267:13708-13713 (1992)	
MB	DN	XIA, et al., "Localization of rat cathepsin K in osteoclasts and resorption pits: inhibition of bone resorption and cathepsin K-activity by peptidyl vinyl sulfones," <i>Biol. Chem.</i> , 380:679-687	

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		(1999)	
MB	DO	YAMAMOTO, et al., "Collagenolytic cathepsin B and L activity in experimental fibrotic liver and human liver," <i>Res. Comms. in Chemical Pathology and Pharmacology</i> , 76(1):95-112 (1992)	
MB	DP	ZHANG, et al., "Structure/activity analysis of human monocyte chemoattractant protein-1 (MCP-1) by mutagenesis," <i>J. Biol. Chem.</i> , 269(22):15918-15924 (1994)	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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